

L7 ANSWER 15 OF 54 CAPLUS COPYRIGHT 2003 ACS  
TI Using the analytical reagent and the detectable reagent in microparticle  
immobilized form for transport flow matrix-type biospecific assays  
AB The invention concerns the transport flow matrix method for immunoassays  
that comprises the deposition of the anal. reagent (Capturer) onto the  
detection zone of test strip, and the application of the detectable  
reagent (Reagent\*) onto a zone of the test strip in a form that both  
Capturer and Reagent\* are immobilized/conjugated to microparticles. The  
microparticles are preferably smaller than the smallest inner dimension of  
the flow matrix channels; 0.1-100 .mu.m for immobilization of the  
Capturer, 0.01-5 .mu.m for the labeling of the Reagent\*. Label particles  
are fluorescent or colored. Microparticles are silica, polymers,  
biopolymers, with hydrophilic groups on their surfaces. The method,  
device and test kit are used for immunoassays, preferably for detg. IgE  
directed to an allergen, or diagnosis of autoimmune disease. Thus birch  
pollen specific IgE was detected from blood. Birch pollen was extd.; the  
ext. was either directly applied to the assay strip to form the detection  
zone; or was first immobilized onto 0.49 .mu.m polystyrene  
**microparticles**, that were phenyldextran modified; the immobilized  
**allergen** was then applied onto the assay strip. Monoclonal  
antibodies to human IgE were conjugated with < 1 .mu.m carbon particles to  
form the detectable reagent. Samples, reagent and buffers were pipetted  
onto the test strip; concns. of birch pollen specific IgE was detected.  
The expts. showed that the same amt. of birch **allergen** deposited  
in the form of coupled **particles** gives significantly higher  
binding of birch-specific IgE antibodies as compared to when the  
**allergen** is deposited directly on the membrane.  
SO PCT Int. Appl., 36 pp.  
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IN Mendel-Hartvig, Ib; Vinterback, Lena; Jonsson, Ann; Gustafsson, Jorgen